

What is claimed is:

1. A method for recording three-dimensional (3D) point geometry of an object using a single camera, comprising:
 - identifying a number of markers on the object;
 - for each marker in the number of markers, recording a linkage distance between the marker and at least one other marker;
 - capturing two-dimensional (2D) image information for the object using a single image capturing device, wherein the 2D image information includes at least some of the number of markers on the object;
 - modeling non-parallel lines of sight for the image collecting device; and
 - using the linkage distance, the modeled lines-of-sight, and the captured 2D image information to recover third dimension information for the object.
2. A three-dimensional (3D) video imaging system, comprising:
 - a single vide camera to capture a two-dimensional image (2D) of an object, wherein the 2D image of the object includes a number of markers;
 - a memory to store a linkage distance from each of the number of markers to at least one other marker, to store a spatial coordinate of a seeding marker and to store a mathematical model of camera lines-of-sight; and
 - a processor to process the 2D image and the linkage distance for each of the number of markers to provide 3D information of the object using the mathematical model.